

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: TROUT POND	Lake Area (ha):	10.00
Town: FREEDOM	Maximum depth (m):	6.7
County: Carroll	Mean depth (m):	2.8
River Basin: Saco	Volume (m ³):	281000
Latitude: 43°50'26" N	Relative depth:	1.9
Longitude: 71°07'45" W	Shore configuration:	1.00
Elevation (ft): 670	Areal water load (m/yr):	5.00
Shore length (m): 1000	Flushing rate (yr ⁻¹):	1.80
Watershed area (ha): 82.9	P retention coeff.:	0.66
% watershed ponded: 0.0	Lake type:	natural

BIOLOGICAL:

21 January 1993

12 August 1992

DOM. PHYTOPLANKTON (% TOTAL)	#1	RHIZOLENIA 65%	CHRYSOSSPHAERELLA 45%
	#2		RHIZOLENIA 25%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			1230
CHLOROPHYLL-A (µg/L)			3.44
DOM. ZOOPLANKTON (% TOTAL)	#1	SYNCHAETA 39%	KELLCOTTIA 27%
	#2	KELLCOTTIA 33%	POLYARTHRA 21%
	#3	KERATELLA 21%	KERATELLA 18%
ROTIFERS/LITER		401	205
MICROCRUSTACEA/LITER		16	78
ZOOPLANKTON ABUNDANCE (#/L)		422	285
VASCULAR PLANT ABUNDANCE			Common
SECCHI DISK TRANSPARENCY (m)			3.0
BOTTOM DISSOLVED OXYGEN (mg/L)		6.2	0.2
BACTERIA (E. coli, #/100 ml)	#1		< 10
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 4.7
Hypolimnion volume (m³) : None
Anoxic volume (m³) : 5000

CHEMICAL:

Lake: TROUT POND

Town: FREEDOM

	21 January 1993		12 August 1992		
DEPTH (m)	2.0	4.0	1.5		4.5
pH (units)	6.2	6.1	6.7		6.0
A.N.C. (Alkalinity)	3.7	2.6	3.6		3.9
NITRATE NITROGEN	< 0.02	< 0.02	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.17	0.15			
TOTAL PHOSPHORUS	0.010	0.010	0.010		0.014
CONDUCTIVITY (μ mhos/cm)	20.4	20.9	18.2		19.7
APPARENT COLOR (cpu)	26	27	47		62
MAGNESIUM			0.27		
CALCIUM			1.3		
SODIUM			1.6		
POTASSIUM			0.35		
CHLORIDE	< 3	< 3	< 3		< 3
SULFATE	2	2	2		2
TN : TP	17	15			
CALCITE SATURATION INDEX			3.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1992

D.O. S.D. PLANT CHL TOTAL CLASS

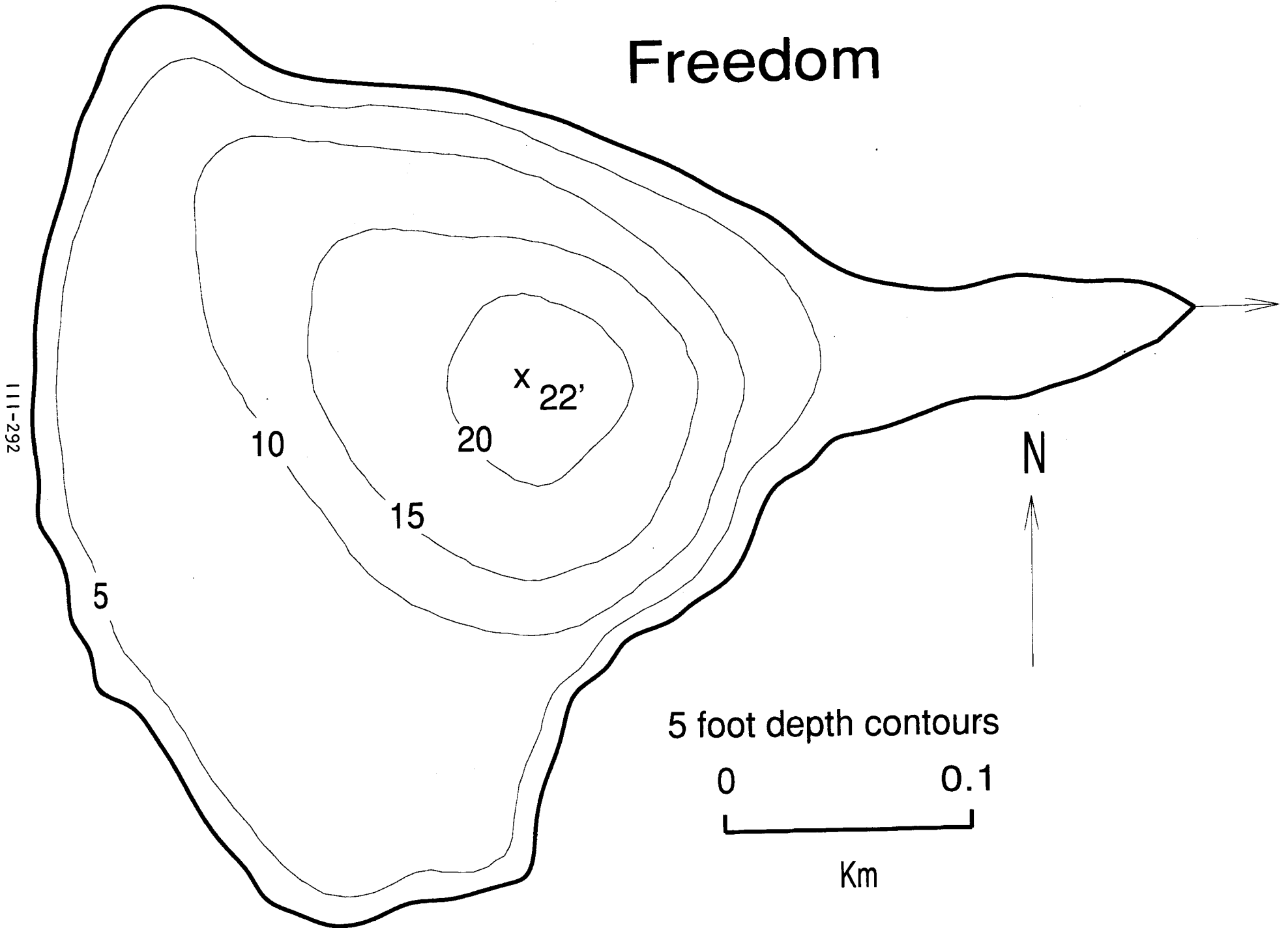
**	3	3	0	6	Meso.
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COMMENTS:

1. Also known as Stacy Pond, Stacy Mountain Pond and Snake Pond.
2. This is a remote pond located on private property. Access is via a gated 4-wheel drive road. It was surveyed jointly with Fish and Game personnel.
3. Dominant genera of wholewater phytoplankton were Cosmarium (20%), Melosira (20%) and Elakatothrix (15%). Greens (65%) were the dominant class.

Trout Pond

Freedom



LAKE: TROUT POND
DATE: 08/12/92

WEATHER: SUNNY; 80 F.

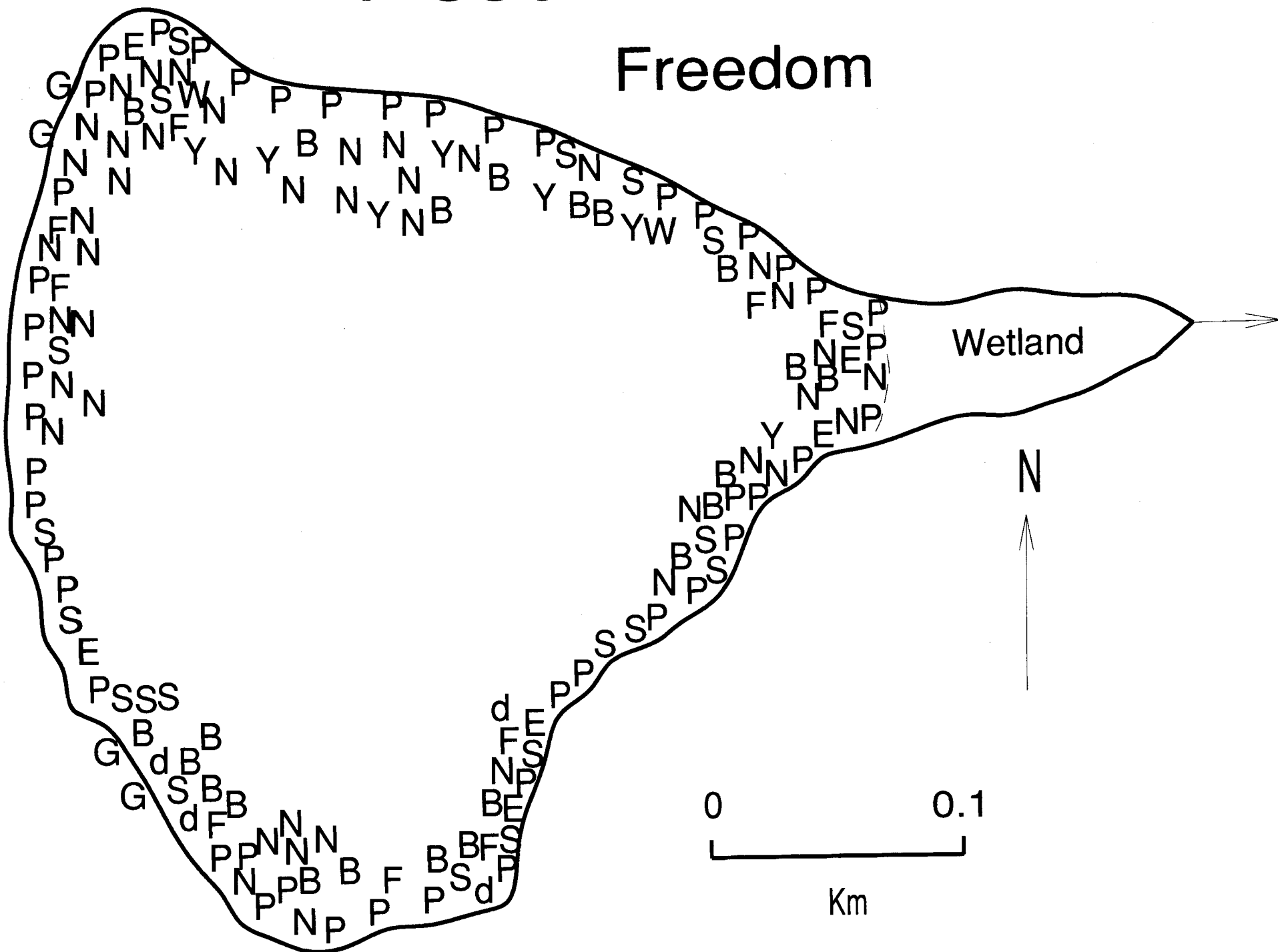
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SECCHI DISK (m):      3.0      COMMENTS:
BOTTOM DEPTH (m):     6.5
TIME:      1150
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Trout Pond

Freedom

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AQUATIC PLANT SURVEY

LAKE: TROUT POND	TOWN: FREEDOM	DATE: 08/12/92
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TOWN: FREEDOM

DATE: 08/12/92

[illegible]

		OVERALL ABUNDANCE: Common	
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GENERAL OBSERVATIONS:

1. The entire pond was surrounded by an encroaching wetland; the narrow outlet cove was part of the wetland.